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ABSTRACT

This guide is a selected listing of reference sources related to history and philosophy of science. Although there are considerable differences between the philosophy and history of science, they are combined in this guide because they are usually found combined in the reference sources. The arrangement of this guide is by type of reference source. Included are: (1) Histories; (2) Encyclopedias and Dictionaries; (3) Bibliographies; (4) Periodicals; (5) Biographies; and (6) Book Reviews. In addition to standard bibliographic data, annotations are provided for most of the documents. (RH)

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Reference Department
1975

HISTORY AND PHILOSOPHY OF SCIENCE: A STUDENT'S GUIDE TO REFERENCE SOURCES

This guide is a selective listing of reference sources available at McGill for research in the history and philosophy of science. Although there are considerable differences between the philosophy and history of science, they are combined in this guide because they are usually found combined in the reference sources, many of which deal with the history of technology as well.

The McGill libraries, particularly the Osler, Blacker-Wood, McLennan, Physical Sciences and Engineering Libraries, are a rich resource for the historian of science, medicine and technology. Their holdings are all listed together in the McGill Union Catalogue located in McLennan Library. A wealth of primary source material can be found in Landmarks of Science, reprints of major monographic scientific publications on microcard. These are not presently listed in the union catalogue, nor is there a printed index. As of summer 1975 the microcards housed in the Current Periodicals and Microfilm Reading Room were in the process of being arranged alphabetically by author.

The arrangement of this guide is by type of reference source. Note that bibliographical references are to be found not only in the sources listed in the section for bibliographies, but also in encyclopedias and dictionaries, biographical sources, periodicals and especially historical works. Several of the latter are the major sources for bibliographies.

There are not many encyclopedias and dictionaries specializing in the areas of history and philosophy of science. General encyclopedias and specialized encyclopedias of science, philosophy, archaeology, etc. should be consulted if additional or more specialized information is required.

Other student's guides which list relevant materials are Philosophy, History, Archaeology and Classical Studies. Copies of these are available at the Reference Desk.

All locations for titles in this bibliography have not been indicated. For additional locations please consult the McGill libraries union catalogue under the entry used in this bibliography.

The reference librarians will be pleased to provide any assistance you may require in using this guide or any of the materials listed in it or in locating further information.

This guide was prepared by Almuth Désautels, Reference Department, McLennan Library.

SE 021 396

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I. HISTORIES

Cutter L .4D25a2 McL.

Darmstaedter, Ludwig. Handbuch zur Geschichte der Naturwissenschaften und der Technik in chronologischer Darstellung. 2. umgearb. und verm. Aufl. (Reprint of Berlin, 1908 edition) New York, Kraus, 1960.

Scientific discoveries and inventions from 3500 B.C. to 1960 are listed in chronological order. Brief descriptions and names of inventors are provided. Name and subject indexes. An important list of corrections is on the last page.

Q125 .D241 1957 Osler

Daumas, Maurice. Histoire de la science. Paris, Gallimard, 1957. (Encyclopedie de la Pléiade, v. 5).

This history is a collaborative work by 16 specialists. It is arranged in numerous chapters and sub-sections grouped under broad subject areas (e.g. les mathématiques, le monde physique, etc.). Bibliographies are appended to the subsections. At the end are chronological tables, detailed analytical tables of contents of the chapters, list of maps, tables and figures, list of scientific Nobel Prize winners 1901-56, and name and subject indexes.

Cutter R .D26 McL.

Daumas, Maurice. Histoire générale des techniques. Paris, Presses Universitaires de France, 1962-
v. I: Les origines de la civilisation technique. 1962.
v. II: Les premières etapes du machinisme. 1965.
v. III: L'expansion du machinisme. 1968.

This history of technology containing the contributions of numerous specialists was published in collaboration with the Centre de Documentation d'Histoire des Techniques. Volume III provides coverage up to the 1850's. At least one more volume is planned to complete the set. Many illustrations, plates, and diagrams are included. Name and subject indexes in each volume. Most chapters have bibliographies and there is a short bibliography of general sources in vol. I (p. 599-601) and vol. III (821-822).

T15 .F415 1971 McL.

Feldhaus, Franz Maria. Die Technik der Antike und des Mittelalters. Mit Vorwort und Bibliographie von Horst Callies. [Reprint of Potsdam, 1930 edition] Hildesheim, Olms, 1971. (Documenta technica. Reihe 1: Darstellungen zur Technikgeschichte).

This work is a history of technology in ancient and medieval times. Although it is based on extensive research with primary sources, these sources are not cited. The many illustrations and plates are sometimes supplied with source references but usually only a general note is given (e.g. "from a 12th century manuscript"). There are four sections: I: Stone, Bronze, and Iron Age; II: The Ancient Orient, East Asia, India, Asia Minor, Egypt; III: Greece & Rome; IV: Middle Ages up to Leonardo da Vinci. There is a bibliography on p. 426-427 and there are two pages of additional (updated) bibliography on p. IX-XI and two more added inside the front cover. The name and subject index (p. 428-442) is bound in the wrong order.

Cutter R .F74s McL.

Forbes, R.J. Studies in Ancient Technology. Leiden, Brill, 1955-64. 9v.

T15 .F729 McL.

_____. _____. 2nd rev. ed. Leiden, Brill, 1964-

These volumes contain chapters on the development of various technologies in ancient times. The studies are detailed and well-documented and include illustrations, maps, bibliographies, etc. Subject indexes are in each volume. The second edition brings the literature up to date but does not change the original text unless new fundamental information has been found since 1954.

DS721
.N39
McL.

Needham, Joseph. Science and Civilisation in China. Cambridge, University Press, 1954-

This work is the definitive history of science in China. It covers science from the earliest times up to the end of the 17th century. There are many illustrations and lengthy bibliographies are provided. It is planned to be complete in 7 volumes.

T1
.N47
McL.
Eng.

Newcomen Society for the Study of the History of Engineering and Technology, London. Transactions. v. 1 (1920/21)- London.

McL. has: v. 1 (1920) - 29 (1955)
Eng. has: v. 30 (1956)-

This is a major source of information on the history of engineering and technology. Besides historical papers, etc., most volumes also contain "Analytical Bibliography of the History of Engineering and Applied Science", which is arranged by subject and covers books, articles, etc. Each volume has an index. There are also cumulative indexes (name and subject entries) for v. 1-10 and v. 11-20 (in McLennan Library), which are superceded by the General Index for v. 1-32 (1920-1960) (in Engineering Library).

Q125
.P63
1947
McL.

Pledge, Humphry Thomas. Science Since 1500; a Short History of Mathematics, Physics, Chemistry, Biology. New York, Philosophical Library, 1947.

First published in 1939, this short coordinating survey covers the history of science up to the present time. It is intended as a background study to monumental work such as Sarton's, Introduction to the History of Science (below). Bibliography is provided in footnotes in the text and in a bibliographical note at the end. Indexes of subjects and names are at the end. The plates, charts and maps included emphasize neglected aspects and figures.

Q125
.S246
U.L.

Sarton, George. A History of Science. Cambridge, Mass., Harvard University Press, 1952-
v. 1: Ancient Science Through the Golden Age of Greece
v. 2: Hellenistic Science and Culture in the Last Three Centuries B.C.

These first two volumes are intended for students of the history of science who have only a minimal knowledge of antiquity. Volume 2, in spite of its title, also covers Roman culture and Latin letters as well as the cultures of Eastern Europe, Egypt, and Western Asia. The text is thoroughly documented. Some illustrations. A brief general bibliography and index of names and subjects are in each volume. This work was originally conceived to be in 8 or 9 volumes to cover science up to the present, but the author died in 1956. According to the foreword in volume 2, Harvard University Press was planning to continue this series.

Q125
.S32
McL.

_____. Introduction to the History of Science. Baltimore, Williams & Wilkins, 1927- (Carnegie Institution of Washington. Publication no. 376).
v. 1: From Homer to Omar Khayyam.
v. 2, pt. 1: From Rabbi Ben Ezra to Ibn Rushd.
v. 2, pt. 2: From Robert Grosseteste to Roger Bacon.
v. 3, pt. 1: First Half of the Fourteenth Century.
v. 3, pt. 2: Second Half of the Fourteenth Century.

The volumes of this monumental bibliographical history that have been published so far provide an invaluable source for the study of the early history of science. For each era there is a general survey of knowledge, followed by sections on particular sciences

in various areas and periods. Each section begins with a review of major developments followed by information on the lives, works, criticism and bibliographical history of individuals. Each volume has a name and subject index and volume 3, part 2 has a cumulated index to all three volumes. Addenda and errata are listed in volume 3 and are continued by the bibliographies in Isis (see section III. A. of this guide).

T15
.S53
1965
McL.

Singer, Charles Joseph et al. A History of Technology. (Reprint of the Oxford, 1954-58 edition, with corrections). Oxford, Clarendon, 1965. 5v.
v. 1: From Early Times to the Fall of the Ancient Empires.
v. 2: The Mediterranean Civilizations and the Middle Ages, c. 700 B.C. to C. 1500 A.D.
v. 3: From the Renaissance to the Industrial Revolution, c. 1500 - c. 1750.
v. 4: The Industrial Revolution, c. 1750 - c. 1850
v. 5: The Late Nineteenth Century, c. 1850 - c. 1900.

This is one of the comprehensive standard histories. Emphasis is on Europe, the Near East and the U.S. Individual chapters are by specialists. There are illustrations (including plates), maps, bibliographies and indexes of names, subjects and place names in each volume.

Cutter
L
.4T18
McL.

Taton, René. Histoire générale des sciences. Paris, Presses Universitaires de France, 1957-64. 4v.
T.1: La science antique et medievale des origines à 1450.
T.2: La science moderne de 1450 à 1800.
T.3, v. 1: La science contemporaine: le XIXe siècle.
T.3, v. 2: La science contemporaine: le XXe siècle.

Q125
.T233
McL.

_____. History of Science. Trans. by A.J. Pomerans. New York, Basic, 1964-66. 4v.

This collaborative work contains the contributions of many specialists. Each section has a bibliography. Development in Phoenicia, pre-Columbian America, and medieval India (often neglected in general histories ot this type) are also covered. Illustrations are provided and each volume has name and subject indexes.

Cutter
L
.4T39
.2
McL.

Thorndike, Lynn. History of Magic and Experimental Science. New York, Macmillan, 1929-58. 8v.

This survey covering up to the end of the 17th century is based on the manuscripts and documents of early writers, scientists and historians. "Magic" is interpreted in the broadest sense to cover occult arts and sciences, superstitions and folklore. It is well documented with bibliographical references. Volume 1 and 2 have general index, bibliographical index, and index of manuscripts; volumes 3, 4, 5 & 6 have general index, index of manuscripts and index of incipits; and volume 7 & 8 general index and index of manuscripts.

Cutter
L
+4W83
McL.

Wolf, Abraham. A History of Science, Technology and Philosophy in the Sixteenth and Seventeenth Centuries. London, Allen & Unwin, 1935.

Cutter
L
.4W83e
.2
UL

_____. A History of Science, Technology and Philosophy in the Eighteenth Century. 2nd ed. rev. by D. McKie. London, Allen & Unwin, 1952 2v.

These works provide a well-documented survey of the history of science and technology from the 16th through 18th centuries. Techniques and experiments are described and a survey of philoso

is included. Select bibliography is incorporated into the text. Many illustrations, diagrams and plates. Name and subject index. Of the work dealing with the 16th and 17th centuries, the 1950 edition (Cutter L .4W83a2 McL.) and the 1962 edition (Q.25 .W796 1962 UL), both prepared by D. McKie, do not differ from the original edition: they are merely reprinted. However, the second edition of the work dealing with the 18th century has been revised with some corrections and the bibliographies have been extended.

II. ENCYCLOPEDIAS AND DICTIONARIES

CB5
.D52
Ref.

Dictionary of the History of Ideas. Ed. by Philip P. Wiener and others. New York, Scribner's, 1973. 5v.

The over 300 articles, all interdisciplinary in approach, deal with a wide variety of topics and are written by specialists. Extensive bibliographies are provided. Volume 5 contains the general indexes; material on the history of science can be found by checking under SCIENCE - HISTORY and HISTORY - SCIENCE and related headings.

GN799
.T6D
McL.

Dictionnaire archeologique des techniques. Paris, Editions de l'Accueil, 1963-64. 2v.

The articles are by specialists and deal with technology and science in the world's ancient civilisations. Information is based on archaeological discoveries. Many illustrations and some bibliographical references are provided with the articles. Each volume has its own table of contents. Bibliography, maps, chronological chart, and subject index to both volumes are at the end of volume 2.

B41
.E5
Ref.

Encyclopedia of Philosophy. Ed. by Paul Edwards. New York, Macmillan, 1967. 8v.

The long, comprehensive articles by specialists are scholarly and up to date. They deal with philosophers and their contributions, philosophical concepts, terms, movements, etc. There are lengthy articles on history and problems under "Philosophy of Science". Articles include substantial bibliographies. Volume 8 includes a detailed subject index to the whole set and should be checked under the heading SCIENCE for other relevant articles.

Q125
.L679
1959-
Osler

Lexikon der Geschichte der Naturwissenschaften: Biographien, Sachwörter und Bibliographien... von J. Mayerhofer [et al]. Vienna, Hollinek, 1959-

This encyclopedia of the history of science contains unsigned articles on persons, scientific subjects and geographical areas prepared by a committee of specialists. It is planned to be complete in 12 volumes (v. 1 covers A - Dodel and was completed in 1970). Coverage is from ancient times up to the end of the 19th century. Volume 1 begins with a section of survey articles on various periods including a general bibliography. There are no biographical articles on living persons; they are, however, mentioned in articles dealing with relevant subjects. Extensive bibliographies are included with each article. Works by and about individuals are listed with the biographical articles.

III. BIBLIOGRAPHIES

A. Current

T1
.N47
McL.
Eng.

"Analytical Bibliography of the History of Engineering and Applied Science", Newcomen Society for the Study of the History of Engineering and Technology, London. Transactions. v. 1 (1920/21)- London.

McL. has: v. 1, 1920 - 29 (1955)
Eng. has: v. 30, 1956 -

See section I of this guide under Newcomen Society.

Z7016
.M35A
Ref.
Index
Stands

L'Année philologique; bibliographie critique et analytique de l'antiquité greco-latine. v. 1, 1924/26- Paris.

Lib. has: v.1, 1924/26-

This is the only comprehensive current bibliography covering the field of classical studies. It includes texts and publications (including journal articles) in all languages. Part 1 is a list of works, editions, etc. by and about individual classical authors. Part 2 lists works not about a specific author or title under various subdivisions by subject. The subdivision "Sciences, Techniques et Metiers" (called "Sciences et Metiers" in the early volumes) lists materials on science in classical times. General works are listed first, followed by sections listing materials on the individual sciences. Various indexes, including grographical and author index, are included in each volume.

Z5051
.B8522x
Ref.

Bulletin signalétique 522: Histoire des sciences et techniques. Paris.

Lib. has: v. 27, 1973-
Osler Lib. has: v. 23, 1969 -

Fomerly:

Z5051
.B8019x
Ref.

Bulletin signalétique 22: Histoire des sciences et techniques. Paris.

Lib. has: v.18 (1964 - v. 21 (1967)

This quarterly international bibliography is published by the Centre Nationale de Recherches Scientifiques and covers journal articles, conferences and congresses, collections, and ephemera. Books are not mentioned except in the case of important book reviews appearing in journals. Arrangement is systematic (see table of contents for details). Indexes of authors, subjects, etc. appear in each quarterly issue and are also cumulated annually.

AI3
.S63x
Ref.
Index
Stands

Humanities Index. v. 1, 1974- New York.

Lib. has: v. 1, 1974-

Continues in part:

AI3
.S49
Ref.
Index
Stands

Social Sciences and Humanities Index. v. 19, 1965- v. 27, March, 1974. New York.

Lib. has: v. 19, 1965 - v. 27, March, 1974.

Fomerly:

International Index to Periodicals. v. 1, 1907/1915 - v. 18, 1964. New York.

Lib. has: v. 1, 1907/1915 - v. 18, 1964.

Fomerly:

Readers' Guide to Periodical Literature Supplement. v. 1, 1907/

1915 - v. 2, 1916/1919. New York.

Lib. has: v. 1, 1907/1915 - v. 2, 1916/1919.

These indexes list articles in scholarly English language journals under authors and subject headings. Since June, 1974 the Social Sciences and Humanities Index has been split into two separate indexes: Social Sciences Index and Humanities Index. Humanities Index covers history and philosophy of science. A separate section at the end of the index lists book reviews alphabetically under the name of the author of the book reviewed.

Q1
.I7
McL.

"Critical Bibliography of the History of Science and its Cultural Influences", Isis, v. 1, 1913- Bruges.

Lib. has: v. 1, 1913 - 51; 53-58:2; 58:4-

Published by the History of Science Association. Before v. 80, (1955), the bibliography was entitled "Critical Bibliography of the History and Philosophy of Science and of the History of Civilization". From 1913 to 1953 it was compiled by George Sarton. It is published annually and lists books, articles, and other publications. Items are often annotated and references to book reviews are provided. Arrangement is classified and an index is included. It supplements material listed in Sarton's A Guide to the History of Science (see section III.B. of this guide) and his Introduction to the History of Science (see section I. of this guide). Volumes 1, 1913 - v. 90, 1965 are cumulated by Magda Whitrow's Isis Cumulative Bibliography (see section III. B. of this guide). It should be noted that the journal itself is also a valuable source for book reviews.

T1
.T27
McL

"Current Bibliography in the History of Technology", Technology and Culture; the International Quarterly of the Society for the History of Technology, v. 5, 1964 -

Lib. has: v. 1, 1959-

Continues:

Ferguson, Eugene, "Contributions to Bibliography in the History of Technology", Technology and Culture; the International Quarterly of the Society for the History of Technology, v. 3, 1962 - v. 5, 1964 .

These annotated bibliographies, covering books, articles, etc., are published annually (Ferguson's were slightly irregular). Materials are listed in a classified arrangement and an index is included. The journal itself is also an important source for book reviews.

B. General

Cutter
ZWAS
.A512
McL.

American Philosophical Society, Philadelphia. Classified Index to the Publications of the American Philosophical Society; a List of Papers, Monographs, Treatises and Books Published by the Society, 1769-1940, Classified According to Subject. Philadelphia, The Society, 1940.

"The American Philosophical Society's publications cover much of the development of American science and thought from 1769 to the present time" (Foreword). This index to its publications is classified according to subject and arranged alphabetically according to author, with the works of each author listed chronologically. List of subject classifications used is at the front and author index is at the end.

Cutter
AS
.A512m
v.66
McL.

_____. Guide to the Archives and Manuscript Collections of the American Philosophical Society, edited by Whitfield J. Bell, Jr. and Murphy D. Smith. Philadelphia, The Society, 1966. (American Philosophical Society, Philadelphia. Memoirs, v. 66).

This list introduces the unpublished materials in the American Philosophical Society's library. The contents of the archives and of the manuscript collections are listed in two separate sections. Index of names and subjects.

fZW1
.A5125
1968
Osler

_____. Library. Science and Medicine to 1870: Pamphlets. Compiled by S.J. Crowther and M. Fawcett. Philadelphia, American Philosophical Society, Philadelphia, 1968. (It's Library Publication, no. 1).

This checklist of pamphlets (a source often overlooked in research bibliographies) is arranged by subject. Within each subject category there are two divisions: "Before 1801" and "19th Century" (i.e. 1801-1870). There is also a section on learned societies. Author, abbreviated title, place, date, and number of pages are provided for each entry. Some entries are for theses. Author index.

Z7405
.H6C3x
Ref.

Calcoen, Roger. Notes bibliographiques; répertoire cumulatif, series 1 à 71, 1946-1968. Bruxelles, Editions culture et civilization, 1970.

This bibliography of books and articles on the history of science and technology in Belgium was prepared for the Comite Belge d'Histoire des Sciences. Works are listed in alphabetical order by name of author. Some references to book reviews are provided in the entries. Index of authors of book reviews, index of names of persons, and subject index (in French and Flemish) are at the end. Works in all languages are covered.

Z7914
.H5F4
Ref.

Ferguson, Eugene S. Bibliography of the History of Technology. Cambridge, Mass., Society for the History of Technology and M.I.T. Press, 1968.

Lists primary and secondary sources for the history of science and technology, with emphasis on technology. Items are listed in sections according to type of bibliographic source (e.g. encyclopedias, manuscripts, biographical materials, periodicals, etc.) The final section lists all types of bibliographical sources according to the subject fields they deal with (e.g. food production, mechanical technology, etc.). Annotations and references to book reviews are provided. Author/subject index. A section at the front discusses needs and opportunities for areas of study in the field.

Z2005
.B7x
UL

Hoskin, M.A. "Books on the History of Science, 1965-71", British Book News (April, 1971)pp. 261-8.

This is a bibliographic essay noting British publications and providing critical commentary. General materials are covered first, followed by sections on individual sciences.

Cutter
ZWL
C43
McL.

John Crerar Library, Chicago. A List of Books on the History of Science, January, 1911. Prepared by Aksel G.S. Josephson. Chicago, John Crerar Library, 1911.

This bibliography lists about 1,500 books. The arrangement is classified, beginning with general works on the history of science and philosophy, followed by sections on the social, physical, natural and medical sciences. The detailed table of contents

provides an outline of the arrangement. Histories of institutions and biographies (except those of the most important scientists) are omitted. Contents of symposia are analysed and some annotations are provided. Histories, bibliographies and periodicals are also listed. Index of names and subjects.

Cutter
ZWR
+C43*l*
McL.

_____. A List of Books on the History of Industry and Industrial Arts. Prepared by Aksel G.S. Josephson. Chicago, John Crerar Library, 1915.

This is a companion volume to A List of Books on the History of Science and has the same format. About 3,300 titles are listed in classified order. Histories, bibliographies, periodicals, and contents of symposia are included. Some annotations are provided. Name and subject index.

On order
for Ref
(July 1975)

Knight, David. Sources for the History of Science 1660-1914. Ithaca, N.Y., Cornell University Press, 1975. (Sources of History: Studies in the Uses of Historical Evidence).

Cutter
F
.9H36
no. 52
McL.

Lindsay, J. The Early History of Science; a Short Handlist. London, Philip, 1950. (Historical Association. Helps for Students of History, no. 52).

This is an introductory bibliography for the early history of science from the beginnings up to the early modern period (1650-1800). The Far East and India are not covered. Major periodicals, bibliographies and general histories of science are listed first, followed by sections dealing with various periods listing first general works and then works on individual sciences.

Z1002
.M4
Ref.

Malclès, Louise-Noelle. "Histoire générale des sciences", Les Sources du Travail Bibliographique, v. III (Geneve, Droz, 1958), pp. 1-12.

This bibliography covers bibliographic sources in all languages for the study of the history of science and technology. General works, comprehensive histories, histories of various periods and countries, biographical sources, histories of universities, and the names of major periodicals are listed.

T1
.T27
McL.

Mitcham, Carl and Robert Mackey, "Bibliography of the Philosophy of Technology", Technology and Culture, v. 14, no. 2, pt. 2 (April, 1973).

This lengthy bibliography lists primary and secondary materials in five different categories. Excellent notes and frequent references to other works of interest are included. Detailed listing of the contents of collections and anthologies is provided. Emphasis is on English language works but many titles in other languages are included.

Q11
.P612
v.81,86
McL.

Pingree, David Edwin. Census of the Exact Sciences in Sanskrit. Philadelphia, American Philosophical Society, 1970- (American Philosophical Society, Philadelphia. Memoirs, v. 81, 86).

This bibliographical guide to Indian scientific writings will consist of two series. Series A contains articles on authors arranged in the order of the Sanskrit alphabet, and is planned to be complete in five volumes. Series B will contain articles on the books arranged in the same way and will be complete in

five or six volumes. A concluding volume will contain tables and indexes. In Series A each volume begins with a list of abbreviations of journals and series cited, a bibliography, and a list of catalogues of Sanskrit manuscripts and books. The articles for each author provide biographical information, list his works and its commentators, manuscripts and editions, discussions of it, and its table of contents, as well as excerpts which provide information about the author.

Z7404
.P74
Ref.

Poggendorff, Johann Christian. Biographisch-literarisches Handwörterbuch für Mathematik, Astronomie, Physik mit Geophysik, Chemie, Kristallographie und verwandte Wissensgebiete. Leipzig, Barth, 1863-1904 and Leipzig & Berlin, Verlag Chemie, 1926-

Bd. 1: A-L (covers up to 1857)
Bd. 2: M-Z (" " " ")
Bd. 3: 1858-1883. 2v.
Bd. 4: 1883-1904. 2v.
Bd. 5: 1904-1922. 2v.
Bd. 6: 1923-1931. 4v.
Bd. 7a: 1932-1953. (German, Austrian & Swiss persons) 4v.
Bd. 7b: 1932-1962. (other countries) not yet complete

Title varies: Band 1-2 are entitled Biographisch-literarisches Handwörterbuch zur Geschichte der exakten Wissenschaften. This work is a standard biographical and bibliographical source covering scientists of all periods and countries. For each period covered, entries are alphabetical by scientist and provide brief biographical notes and full bibliographical references to their works (including contributions to periodicals). Living persons are included. From Band 9 onward, scientists are listed in two separate sections: a) German, Austrian and Swiss scientists and b) other nationalities. Keys to abbreviations for bibliographical references ("Schlüssel zur Quellenliteratur") are in Band 2 (column 1447-1468), Band 3 (column 1491-1496) & Band 4 (column 1717-1718). Further list of abbreviations are in Band 6 (in both volumes 1 and 3) and in Band 7a (in volume 4).

Z7405
.H6R5
Lib.Sci.
Osler

Rider, K.J. History of Science and Technology; a Select Bibliography for Students. London, Library Association, 1967. (Library Association. Special Subject List, no. 48).

General works and works on specific sciences and technologies are listed in a classified arrangement. Emphasis is on recent and English language materials. Highly technical or specialized works, original works of scientists, personal biographies, works on medicine, agriculture and the commercial history of industry are included. Author, title and subject index.

Z7405
.P5R8
1969
Ref.

Russo, Francois. Éléments de bibliographie de l'histoire des sciences et des techniques. 2. ed. ref. et augm. Paris, Hermann, 1969.

Part I lists sources for general information on the state of research in the field, biographies of historians of science, and names of societies, congresses, research centers, museums, etc. Part II lists general printed sources such as encyclopedias, bibliographies, journals and histories. Part III lists works on the history of science by period including source materials and works by and about individual authors. Part IV lists works on the history of individual scientific fields in a classified subject arrangement. Emphasis is on French-language publications. Very brief annotations and some references to book reviews are provided. Index of names, titles and subjects. The first edition, with the title Histoire des Sciences et des Techniques: Bibliographie, was published in 1954 (Cutter ZWL .R92h, McL).

Cutter
L
.4S249g
Blacker
U.L.

Sarton, George. A Guide to the History of Science; a First Guide for the Study of the History of Science, With Introductory Essays on Science and Tradition. Waltham, Mass., Chronica Botanica, 1952.

The first part contains introductory essays discussing the purpose and meaning of the history of science. Part II, which forms the major section of this work, is an important bibliographical guide. It is divided into several sections listing works dealing with various aspects of the field, the history of science of different countries and cultural groups, the history of the different sciences, etc. Sociology, psychology & philosophy are included. Technology is only dealt with indirectly. There are also sections on periodicals, libraries and museums, congresses, academic institutions and learned societies. Name index.

See also Sarton's more comprehensive Introduction to the History of Science (section I. of this guide) for additional bibliography.

Z664
.G5
no.5
Ref.

Schüling, Hermann. Bibliographisches Handbuch zur Geschichte der Psychologie; das 17. Jahrhundert. Giessen, Universitätsbibliothek, 1964. (Berichte und Arbeiten aus der Universitätsbibliothek Giessen, no.5).

This bibliography is an alphabetical list by author of 17th century works concerned with psychology. It begins with a brief introduction discussing contemporary developments, followed by lists of abbreviations of bibliographies and catalogues consulted and of libraries and collections where the works are located. At the end are subject index, index of authors dealt with in works by others, and a selective bibliography of secondary works on 17th century psychology.

Z7405
.H6S85
Ref.

Stillwell, Margaret Bingham. The Awakening Interest in Science During the First Century of Printing (1450-1550); an Annotated Checklist of First Editions Viewed from the Angle of Their Subject Content: Astronomy, Mathematics, Medicine, Natural Science, Physics, Technology. New York, Bibliographical Society of America, 1950.

Part I lists works alphabetically by author under the six disciplines with which this bibliography is concerned. Under each entry the reference works consulted are cited and annotations provided. The key to abbreviations of reference works is at the front. Part II A provides five separate analytical listings of the entries in Part I under names of commentators, editors, places of printing, printers and publishers, and translators. Part II B lists the works chronologically under their dates of first printing. Index of authors, anonymous titles, and subject headings.

Z6605
.L3T3
1963a
Ref.

Thorndike, Lynn and P. Kibre. A Catalogue of Incipits of Medieval Scientific Writings in Latin. Rev. & augm. ed. Cambridge, Mass., Medieval Academy of America, 1963. (Medieval Academy of America. Publication no. 29).

The first lines of medieval scientific writings in Latin are listed in alphabeticaly order. Each entry provides name of author, title, and "either one or more manuscripts or editions where it may be found, or some secondary work giving this information, or some other source for the incipit" (Preface). Generally writings up to 1500 are covered (except for alchemical works). Medical, occult sciences, natural and mathematical sciences are covered, as well as medieval Latin translations of ancient authors in those fields. Abbreviations are listed in the front and there is an author, title, and subject index at the end.

Z2011 .B28 Ref.

Watson, George (ed.). The New Cambridge Bibliography of English Literature. Cambridge, University Press, 1969-

In volume 1, which covers the years 600-1660, section VIII deals with cience and lists general works, bibliographies, modern studies and contemporary treatises, followed by listings of modern studies and contemporary treatises under various topics (e.g. mathematics, astronomy, alchemy, etc.). In volume 2, covering 1660-1800, section XII lists works on the language and literature of science, the Royal Society and its controversies, and scientific biography. In volume 3, 1800-1900, the index must be checked under individual scientists' names as there is not a separate section for writings by and about scientists. In volume 4, 1900-1950, section III covers writers on natural science. The index volume is not yet published. The first edition of the Cambridge Bibliography of English Literature (Z2011 .B28 Ref.) also has sections on the history of science. This edition published 1940-57 includes works not listed in the new edition. References are also given in the index volume under SCIENCE and related headings.

Z7405 .H6W4x Ref.

Whitrow, Magda (ed). Isis Cumulative Bibliography; a Bibliography of the History of Science Formed from Isis Critical Bibliographies 1-90, 1913-1965. London, Mansell, 1971-

Contains references to books, journal articles and pamphlets. Part I, "Personalities" lists items about the life and work of an individual as subject entries and new editions of his work as author entries. Part II, "Institutions" lists items about the history and work of institutions and societies. References from one part to another are given. The publication of further parts is planned.

C. History of Bibliography

Cutter ZCJ K92 cL. sler

Kronick, David A. A History of Scientific and Technical Periodicals; the Origins and Development of the Scientific and Technological Press, 1665-1790. New York, Scarecrow, 1962.

The study examines scientific journalism in an attempt to contribute to an understanding of the relationship between the process of development and acceptance of a scientific theory and the process of opinion formation in general, and of the nature of these processes. Emphasis is on the chracteristic forms of scientific periodicals (including various types of journals, society proceedings, collections, almanacs, annuals, etc.) in the 17th and 18th centuries. Historical background and the antecedents of the scientific periodical are also surveyed and there is also a chapter on the bibliographic control of periodical literature. Numerous tables are included in the text and there is also a bibliography. Indexes of names, subjects and titles.

Q127 .G7M8 Lib.Sci.

Mumby, Alan Noel Latimer. The History and Bibliography of Science in England: the First Phase, 1833-1845; To Which is Added a Reprint of a Catalogue of Scientific Manuscripts in the Possession of J.O. Halliwell, Esq. Berkeley, University of California School of Librarianship, 1968.

This bibliographical essay is a study of "trends in book collecting, in bibliographical techniques and in scholarly method" (p. 1). References are provided in the text and in notes.

Z7401
.T45
1971
UL
Blacker
PSC

Thornton, John Leonard and R.I.J. Tulley. Scientific Books, Libraries and Collectors; a Study of Bibliography and the Book Trade in Relation to Science. 3rd. ed. London, Library Association, 1971.

This study of the bibliography of science is an "introductory history of the production, distribution and storage of scientific literature from the earliest times" (Preface). The bibliographical development for each period is traced, recording the chief writings of prominent scientific authors giving details on important printed editions and sources for fuller details. Incunabula are also covered. Scientific societies, periodical literature, libraries, publishing, etc. are discussed in separate chapters. A chapter on the bibliography of the history of science is included. There is a bibliography of sources for further information. Index of authors, subjects and names of journals and institutions includes items in the bibliography and the footnotes.

D. Theses

Z5055
.C2C32x
Ref.

Canada. Public Archives. Register of Post-graduate Dissertations in Progress in History and Related Subjects. Répertoire des thèses en cours portant sur des sujets d'histoire et autres sujets connexes. no. 1, 1966- Ottawa.

Lib. has: no. 1, 1966-

This annual list is arranged by subject. Consult the table of contents to find theses on the history of science. Index of names.

Bl
.R34
McL.

"Doctoral Dissertations in Philosophy", Review of Metaphysics. v. 1, 1947/48-

Lib. has: v. 1, 1947/48-

The annual September issue contains a listing under the names of U.S. and Canadian institutions. As there is no subject index, items on the philosophy and history of science can only be found by checking the listing under each university.

Q125
.H63
McL

"Doctoral Theses in Preparation or Recently Completed", History of Science; an Annual Review of Literature, Research and Teaching. v.1, 1962- Cambridge.

Lib. has: v. 1, 1962-

An annual list of dissertations in progress or recently completed at British universities. Arranged by university.

Z5055
.G695
Ref.

Historical Research for University Degrees in the United Kingdom. no. 1, 1931/32- London.

Lib. has: no. 1, 1931/32-

Since 1953 this list appears in two parts: theses completed and theses in progress. Subject arrangement. Under names of countries history of science theses are listed under the subdivision "Education, Literature, Science and Medicine". Author index and subject index. See main entry card in the McGill Libraries union catalogue for historical notes on publication.

Z6201
.K8
Ref.

Kuehl, Warren F. Dissertations in History; an Index to Dissertations Completed in History Departments of United States and Canadian Universities, 1873-1960. Lexington, University of Kentucky Press, 1965.

_____. _____. Volume 2, 1961-June 1970. Lexington, University of Kentucky Press, 1972.

Lists PhD dissertations. The second volume includes some titles for the period covered by volume one which were unavailable at the time of publication. Arranged by author. The detailed subject indexes can be checked under SCIENCE and related headings for theses on the history of science.

Z5055
.U49L7
Ref.

List of Doctoral Dissertations in History Now in Progress or Completed. 1914- Washington.

Lib. has: 1964; 1967-

This is a register of titles submitted to the American Historical Association indicating a student's intention to pursue a chosen topic. It is published every 3 years. History of science theses are listed under the name of the country in the subdivision "Social, Intellectual, Scientific". Some are also listed under the category "Otherwise Unclassified". Author index.

For more information please see A Guide to Theses Location and Verification Tools Available in McGill Libraries, copies of which are available at the Reference Desk.

IV. PERIODICALS

This is a very selective list of major titles of journals in the field of history of science. Additional titles can be found by checking the lists provided in most of the bibliographies covering this field.

Q1
.A616
McL.

Annals of Science; a Quarterly Review of the History of Science Since the Renaissance. v. 1, 1936- London.

Lib. has: v. 1, 1936-

Contains lengthy original and critical essays and commentaries, book reviews and correspondence.

Q1
.A67
McL.

Archives internationales d'histoire des sciences. v. 1, 1947- Paris

Lib. has: v. 1, 1947-

Published quarterly and contains lengthy original and critical articles in all languages, obituaries, book reviews, documentation and official news of the Union Internationale d'Histoire de la Philosophie des Sciences. It is published by the Division d'Histoire des Sciences of the Union and is subsidised by UNESCO. Publication was suspended 1971-73.

Osler

British Journal for the History of Science. v. 1, 1962- Ravensmead, Eng.

Lib. has: v. 1, 1962-

Published twice a year by the British Society for the History of Science. Contains original papers, essays, reviews, notes, obituaries, information on conferences and lists of papers in current periodicals on the history of science.

Q125
.H63
McL.
Blacker
UL

History of Science; an Annual Review of Literature, Research and Teaching. v. 1, 1962- Cambridge.

Lib. has: v. 1, 1962-

These annual volumes (quarterly since v. 11, 1973) contain critical bibliographical essays reviewing problems and materials for research as well as reviews of books. Indexed by Historical Abstracts (D299 .H5 Ref. Index Stands) and America: History and Life (Z1236 .A48 Ref.). It includes a list of British doctoral dissertations in preparation or recently completed, arranged under the names of universities.

Q1
.I7
McL.

Isis. v. 1, 1913- Bruges.

Lib. has: v. 1 (1913)-51; 53-58:2; 58:4-

Published by the History of Science Association and contains major articles, documents and translations of original texts, obituaries, notes, correspondence, book reviews and bibliography (for information on the latter see section III. A. of this guide).

Q1
.O7
McL.

Osiris; Studies on the History and Philosophy of Science and on the History of Learning and Culture. v. 1, 1936- Bruges.

Lib. has: v. 1, 1936- v. 14, 1962.

Founded by George Sarton. Published irregularly (v. 13, 1958; v. 14, 1962). Contains lengthy scholarly articles, commentaries and monographs in various languages.

V. BIOGRAPHY

Q46
.A163
1968
Ref.

Academie des Sciences, Paris. Index biographique des membres et correspondants de l'Académie des Sciences du 22 décembre 1666 au 15 décembre 1967. 3. Paris, Gauthier-Villars, 1968.

This index, which is the third special cumulation that has been published, provides very brief information on the individuals listed: place and date of birth and death, date and nature of election, general indication of specialization and activities during career, and, if applicable, references to material on the individual published in the Académie's Memoires or Notices et discours, and to documents (including portraits) in the Académie's archives.

Q141
.B29
Ref.

Barr, Ernest Scott. An Index to Biographical Fragments in Unspecialized Scientific Journals. University, Ala., University of Alabama Press, 1973.

This index lists sources for biographical information and contemporary comment on scientists (distinguished as well as less well-known persons) up to about 1920. Includes persons of all times and countries. The listing is alphabetical by the names of the individuals. Only English language scientific journals are covered.

Q141
.D28
1966
McL.

Darmstaedter, Ludwig. Naturforscher und Erfinder; biographische Miniaturen. (Reprint of Bielefeld, 1926 edition) New York, Johnson Reprint, 1966. (Sources of science, no. 26).

These articles on fifty scientists and inventors of all times are two to five pages long. They provide biographical information on the individuals, discuss their work and discoveries, and include illustrations and portraits, and some bibliographical references to primary sources.

Q141
.D5
Ref.

Dictionary of Scientific Biography. New York, Scribner's, 1970-

This work is published under the auspices of the American Council of Learned Societies and with the support of the National Science Foundation. The articles are written by specialists. The professional lives of scientists are discussed and brief biographical information is provided. A bibliography is appended to each article. Scientists of all times, as well as some historians of science, are covered (living persons excluded) in all scientific fields except medicine. Emphasis is on western countries. To be complete in 13 volumes. The final volume will contain supplementary essays (e.g. on Indian science) and index.

Cutter
L
.8R814
.Yh
McL.
Osler

Hartley, Harold. The Royal Society; its Origins and Founders. London, Royal Society, 1960.

This study of the genesis of the Royal Society provides biographical sketches of founding members and prominent early members.

Cutter
E
.5H83
Eng.

Howard, Arthur V. Chambers's Dictionary of Scientists. London, Chambers, 1955.

These brief biographical articles discuss the careers, achievements, and major publications of scientists of all times, including a few living persons. Subject index.

Z7404
.I7
Ref.

Ireland, Norma Olin. Index to Scientists of the World from Ancient to Modern Times: Biographies and Portraits. Boston, Faxon, 1962.

Sources for biographies, portraits, and scientific contributions of scientists are listed under their names. Dates, nationality and occupation are indicated for each person. Although the sources are usually easily accessible materials, references to the standard biographical sources, encyclopedias, and monographs on individuals are not given. Lists of general abbreviations and abbreviations for bibliographical sources are at the beginning. An asterisk (*) indicates books for younger readers.

Z7404
.P74
Ref.

Poggendorff, Johann Christian. Biographisch-literarisches Handwörterbuch fur Mathematik, Astronomie, Physick mit Geophysik, Chemie, Kristallographie und verwandte Wissensgebiete. Leipzig, Barth, 1863-1904 and Leipzig & Berlin, Verlag Chemie, 1926-

See section III.B. of this guide.

Q41
.R9
McL
Osler

Royal Society of London. Biographical Memoirs of Fellows.
v. 1, 1955- London.

Lib. has: v. 1, 1955-

This annual publication provides lengthy accounts of the lives and work of deceased Fellows, including portraits and bibliographies. Earlier years were covered by Obituary Notices of Fellows of the Royal Society, 1932-54, in 9 volumes (Cutter L 8R814o McL.). Before 1932 obituaries were published in the Proceedings (Q41 .L7 McL) and also (from 1900) in the Yearbook (Q41 .L847 McL.). Volume 75 of the Proceedings contained obituaries for 1898-1904 and a general index to obituaries published 1860-1899. Before 1860 obituaries appeared annually in the Proceedings with the President's address. The subjects of the biographical memoirs are listed (with the names of the authors of the memoirs provided in parentheses) in the appendix in Decennial Index: Index of Authors in Proceedings, Philosophical Transactions and Biographical Memoirs, Royal Society, 1961-1970 (Z7409 .R88 1971 Ref.). The previous cumulated index covering 1951-1960 is on order.

General biographical sources, such as national biographical dictionaries, should not be overlooked. If additional information is required, please ask a reference librarian for assistance.

VI. BOOK REVIEWS

The references given here refer to items listed in this guide which provide references to book reviews. None of them are strictly book review sources, but merely provide references as a feature.

I. Sarton

III. A. Bulletin Signaletique
Humanities Index

B. Calcoen
Ferguson
Hoskin
Russo

IV. Annals of Science
Archives Internationales d'Histoire des Sciences
British Journal for the History of Science
History of Science
Isis